LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) In a cellular telephone system comprising at least one antenna for detecting a received signal and a signal processor for processing the received signal detected by the at least one antenna, a method of determining the amount of signal power and interference power in a received signal, the received signal having a wanted signal providing said signal power and a plurality of interfering signals providing said interference power, the wanted signal being encoded such that there is a channel structure including a broadcast control channel, the method comprising use of the signal processor in the steps of:

a) selecting a plurality of ~~first~~ portions having a first known structure in ~~the wanted~~ said received signal, said plurality of ~~first~~ portions being identified using a further known structure within the broadcast control channel to provide a signal having known periods with defined properties;

b) processing ~~the received signal in accordance with~~ said plurality of ~~first~~ portions to derive a set of amplitude values corresponding to [[the]] said first known ~~structures~~ structure; and

c) ~~using the set of amplitude values to determine~~ determining both [[a]] said signal power level and [[an]] said interference power level ~~for at least part of the received signal~~ from said derived set of amplitude values.

2. (Cancelled)

3. (Currently Amended) A method according to claim 1, wherein step a) includes identifying locations of the further known structure within the ~~wanted~~ received signal, and using the identified locations to derive the locations of said plurality of ~~first~~ portions.

4. (Currently Amended) A method according to claim 1, wherein said plurality of ~~first~~ portions comprises Frequency Correction Bursts.

5. (Original) A method according to claim 3, wherein said further known structure comprises sync bursts.

6. (Currently Amended) A method according to claim 1, wherein the step of identifying said plurality of ~~first~~ portions includes using pointers selected by said further known structure.

7. (Currently Amended) A method according to claim 6, wherein said pointers are stored in a look-up table, and step a) includes using said pointers to select said plurality of ~~first~~ portions.

8. (Currently Amended) A method according to claim 1, wherein step b) comprises correlating the received signal with said selected plurality of ~~first~~ portions to derive said amplitude values.

9. (Previously Presented) A method according to claim 1, wherein step c) comprises determining mean and variance values for said amplitude values.

10. (Previously Presented) A method according to claim 1, wherein step c) further comprises using calibration factors to produce an absolute power value for the wanted signal.

11. (Previously Presented) A method according to claim 1, wherein step c) further comprises using said calibration factors to produce an absolute power value for the interfering signals.

12.-27. (Cancelled)

28. (New) A method according to claim 1, the method further comprising the step of using at least two antennas in time-coincident manner to detect the received signal comprising the wanted signal and plurality of interfering signals.

29. (New) A method according to claim 1, wherein step c) comprises determining said signal and interference power levels from mean and variance values for said derived set of amplitude values.